

jets burning. *At the same temperature*, however, we should expect to find the largest amount of it at low elevations, thus vitiating the lower strata of the atmosphere, or room, very greatly. Fortunately, however, gases have the power of "diffusion," so that a heavy gas will actually rise to mix with a lighter gas; further, it will pass through membranes and thin plates of stucco to effect the same object. so that the amount of carbonic acid is not generally a function of the elevation of a locality.

Where a room has no flue or chimney to keep up a constant circulation, then openings should be provided near the top of the room to let the warmer impure gases out, and not let them cool and descend again to vitiate the air we breathe.

Vitiation by Perspiration.—In addition to the carbonic acid given off by the lungs and skin of a man, there is exhaled a considerable degree of moisture, generally loaded too with organic matter, which produces smell. The amount has been estimated at from 1.5 pounds to 2.5 pounds per day on an average. A high temperature, or exercise, causes greater perspiration, thus cooling the person somewhat.

The amount of moisture given off is considered by some in connection with the carbonic acid exhaled, to ascertain the theoretical amount of air to admit; but this theoretical amount for most houses is larger than healthy persons seem to require, according to certain experience. This is accounted for by the fact that opening doors and windows, especially if they are kept open for some time, the draft through cracks, &c., add very much to the volume of admitted air, though not considered in the computation.

Lime as a Purifier.—If a house has been lately plastered or white-washed, the lime will, at first, take up the carbonic acid with avidity; so will any ordinary mortar; in fact, I have seen artificial stone made by passing the products of combustion of a stove (carbonic acid mainly) by a flue into a room where was placed the mortar, moulded into the re-